

REMARKS**STATUS OF THE CLAIMS**

Claim 7, 9-14, 18-19, and 35-38 remain in the Application. Claims 7, 18, and 19 have been amended. Claim 17 has been canceled.

The Office rejected claims 7, 9-14, and 35-38 under 35 U.S.C. 103(a) as being unpatentable over *Behar* in view of *Manginell*.

The Office indicated that claims 17-19 would be allowable, but objected to these claims as being dependent upon a rejected base claim.

SUMMARY OF THE INVENTION

The present invention is directed a method for vaporizing a liquid or solid sample using a micropyrolyzer. The micropyrolyzer can perform heated chemistry by introduction of a reagent chemical to the sample prior to heating the sample. The micropyrolyzer comprises a substrate having a suspended membrane formed thereon and a resistive heating element disposed on the membrane for heating the sample. The micropyrolyzer can be constructed from semiconductor materials. The sample size can be less than 3 microliters and the heating rate can be 20 - 70°C per millisecond with very low power consumption.

SUMMARY OF THE ART

Behar, U.S. 4,710,354, discloses a method and device for heating of solid or liquid samples in small quantities comprising a sample holding rod that can be inserted into a tubular heated liner for pyrolysis of the sample.

Manginell et al., “Microfabrication of membrane-based devices by HARSE and combined HARSE/wet etching,” describes high-aspect-ratio silicon etching that can be used to obtain thin supported membranes for use as microhotplates.

ARGUMENTS**CLAIM 7 HAS BEEN AMENDED TO INCLUDE THE LIMITATION OF CLAIM 17**

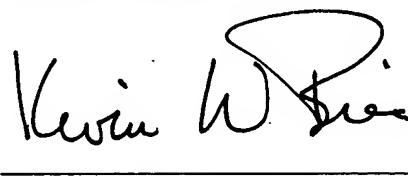
The Office objected to claims 17-19 as being dependent upon a rejected base claim, but indicated that these claims would be allowable, if rewritten in independent form including

all of the limitations of the base claim and any intervening claims. Base claim 7 has been amended to include the limitation of allowable claim 17. Accordingly, Applicants submit that claim 7 is now in condition for allowance. Applicants have canceled claim 17. Applicants have amended claims 18 and 19 to depend from claim 7. Applicants submit that claims 9-14, 18-19, and 35-39, that depend from and further define claim 7, are also in condition for allowance. *See MPEP 2143.03.*

CONCLUSION

Applicants urge that the claims as presented are now in condition for allowance. Applicants request expeditious processing to issuance.

Respectfully submitted,



Kevin W. Bieg
Attorney for Applicants
Reg. No. 40,912
Ph: 505 284-4784
Sandia National Laboratories
P.O. Box 5800/MS 0161
Albuquerque, NM 87185-01

CERTIFICATION UNDER 37 CFR 1.8

I hereby certify that this correspondence and documents referred to herein were deposited with the United States Postal Service as first class mail addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 on the date shown below.

Date: 11/1/2005

By: Martha Juarez